

International evaluation and accreditation

EVALUATION AND ACCREDITATION DOCUMENTS

PhD Animal Science (Livestock Production and Range Management in African Drylands)

Centre for Dryland Agriculture
Bayero University, Kano

Nigeria

December 2021

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High Council for evaluation of research and higher education

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EVALUATION REPORT

PhD Animal Science (Livestock Production and Range Management in African Drylands)

Centre for Dryland Agriculture
Bayero University, Kano

Nigeria

September 2021

Bayero University, Kano has mandated the Hcéres to perform the evaluation of its PhD Animal Science (Livestock Production and Range Management in African Drylands. The evaluation is based on the "External Evaluation Standards" of foreign study programmes, adopted by the Hcéres Board on October 4th, 2016. These standards are available on the Hcéres website (hceres.fr).

On account of exceptional circumstances, the organization of the evaluation was adapted (replacement of the physical on-site visit by the panel by a visit by videoconference), while remaining compliant with the fundamental principles of institution or study program evaluation: external evaluation standard applied, the self-evaluation report (SER) and requested annexes sent by the institution, panel of experts set up by the Hcéres, collegial work by the panel, interviews with the institution and its partners by videoconference, report drafted and then sent to the institution in its provisional and then final version, response by the institution to the report by the panel. This specific procedure is in line with the official position defined jointly by the European Association for Quality Assurance in Higher Education (ENQA) and the European Quality Assurance Register for Higher Education (EQAR).

For the Hcéres¹:

Thierry Coulhon, President

On behalf of the experts committee²:

Carole Molina Jouve, President of the committee

In accordance with the decree n°2014-1365, November 14th, 2014,

¹The president of Hcéres "countersigns the assessment reports made by the experts' committees and signed by their president" (article8, alinéa 5).

²The evaluation reports "are signed by the president of the committee" (article11, alinea 2).

I. NATIONAL CONTEXT AND INSTITUTION IDENTITY SHEET

GENERAL CONTEXT AND HIGHER EDUCATION

Bayero University, Kano (BUK), established by the Federal Government of Nigeria in 1979 (Decree No. 79), is one of the Universities in Nigeria that provides high quality training in diverse areas. Located in Kano, capital city of Kano State in North West zone of Nigeria, BUK has 2 colleges, a business school, 18 faculties and 97 departments. BUK presently manages 85 undergraduate degree programmes, and 122 postgraduate programmes including 25 postgraduate diplomas, 59 masters and 38 doctorates. Additionally, there are 11 centres and institutes, plus several other supporting units. Actually, the student population is around 48,010 with 37,626 undergraduate and 10,384 postgraduate students, and the number of staff is around 1,784 teaching staff. The mission of BUK is to provide world-class academic and professional training, community services and research for the advancement of society.

One of academic centers of BUK is the centre for dryland agriculture (CDA). This center was established in 2011 by the University Senate to respond to the development needs of the West and Central African (WCA) dryland region by contributing to improve agricultural productivity and sustainable management of the environmental resources through relevant high-level human capacity development, demand-driven research and effective outreach. The center becomes in 2014 an African center of excellence (ACE) in dryland agriculture. The main objective of the establishment of the CDA is to specialize as a regional center of excellence in dryland agriculture delivering quality training and applied research in response to the needs of the WCA region, thus contributing to food security, improved livelihood and reduction in poverty and conflicts. The Center offers postgraduate programmes awarding MSc and PhD in agronomy (with specialization in crops and cropping systems in the drylands), geography (natural resource economics and climate change), animal science (with specialization in livestock production and range management in drylands), agricultural economics (with specialization in livelihoods and natural resource economics), and agricultural technology in 5 academic departments: agronomy, geography, agricultural economics and extension, animal science, agricultural and environmental engineering. The CDA also manages a postgraduate diploma programme (PGD) in dryland agriculture and organises several short courses for the specific training needs of stakeholders.

INSTITUTION

- **University/institution:** Bayero University Kano, (BUK).
- **Component, faculty or department concerned:** Centre for dryland agriculture, department of animal science, faculty of agriculture.
- **Programme's title:** PhD animal science.
- **Training/speciality:** Livestock production and range management in African drylands (LPRMAD).
- **Year of creation and context:** Established in 2014 as an on-site full-time programme of the centre for dryland agriculture (CDA) in BUK to respond to the needs of the West and Central Africa (WCA) dryland region through relevant high-level human capacity development and demand-driven research.
- **Site(s) where the programme is taught (Town and campus):** Kano, Bayero University main campus, centre for dryland agriculture (CDA).
- **Programme director:**
 - a) Surname, first name: Rano, Nuhu Bello
 - b) Profession and grade: Assistant Professor, PhD
 - c) Main subject taught: Monogastric nutrition

METHODS AND RESULTS OF THE PREVIOUS ACCREDITATION(S)

1. Methodology and agency:

The accreditation of the PhD programme in animal science (livestock production and range management in African drylands) was conducted by the National Universities Commission (NUC) of Nigeria in March 2017.

2. Results:

This programme, which achieved 91 % overall in the National Universities Commission accreditation exercise, is accredited for a period of 5 years.

HUMAN AND MATERIAL RESOURCES DEDICATED TO THE PROGRAMME

3. Human resources:

The staff is composed of 8 permanent academic staff (including 2 professors, 4 associate professors and 2 senior lecturers), 6 technical staff, 1 administrative staff and 6 junior staff. Additionally, six technical staff are in charge of lab and farm facilities.

4. Material resources:

The PhD programme animal science (livestock production and range management in African drylands) benefits from CDA and BUK facilities. 8 offices are made available for academic staff, and students have access to:

- Classrooms of the University, shared among departments, and 4 CDA classrooms fully air-conditioned and equipped with projectors and electronic smartboards;
- Central library and internet facilities in the CDA office complex, and lecture rooms;
- 12 offices;
- Research units of the centre (GIS Laboratory, molecular laboratory, central instrumentation laboratory and tissue culture laboratory), with specific equipment for PhD student;
- State of the art laboratory equipment are available (especially in the fields of land survey, hydrology and soil & water);
- Network of automated weather stations, a field camp support and cloud based air quality device;
- 22 hectares training and research farm, well equipped with drip and sprinkler irrigation facilities with full automation, net houses, screen houses, and a greenhouse, field research equipment including green seekers, GPS units, android phones.

Photographs of lecture rooms, laboratories and the farm, showing equipment and staff involved in trainings and research, were presented to the committee. These photographs allow to assess the quality of the accommodation, material resources, teaching and training conditions.

CDA students have access to campus-wide license for numerous software. Free internet connection is available for all faculty members and students. They use emails, newsletters, websites and other electronic media for communication and social media platforms. All information on professional training events, scholarship opportunities, conferences and research activities are hosted on the CDA website. Experts could not verify this information as the website did not work. In addition, numerous e-resources are available for students, including databases such as Science Direct, Scopus, EBSCOHOST, LAN TEEAL and AGORA.

STUDENT POPULATION: EVOLUTION AND TYPOLOGY OVER THE LAST 4 YEARS

Year	Female (National)	Male (National)	Female (Foreign)	Male (Foreign)	TOTAL enrolled	Applicants	Graduates
2015/2016	0	0	0	0	0	1	0
2016/2017	0	0	0	0	0	1	0
2017/2018	0	0	0	0	0	1	0
2018/2019	1	0	0	2	3	2	0

2019/2020	0	0	0	0	0	6	0
TOTAL	1	0	0	2	3	11	0

Data on slides presented during the virtual visit and data sent to the experts after the visit need to be reviewed.

II. EVALUATION PROCEDURE

COMPOSITION OF THE COMMITTEE

President:

- Carole Molina Jouve, Professor, Institut National des Sciences appliquées de Toulouse

Experts:

- Christophe Bressac, Assistant Professor, Université de Tours
- Delphine Latour, Assistant Professor, Université de Clermont-Auvergne
- Mathilde Colas, PhD student (Student expert), Université de Technologie de Troyes
- The committee was accompanied by Prof. Pierre Courtellemont, science advisor at the Hcéres, and Antoine Devoucoux du Buisson, head of project at the Hcéres.

ON-SITE VISIT DESCRIPTION

- Date of the visit: January 12th and 13th, 2021.
- Organization of the visit: the virtual visit (due to COVID-19 sanitary crisis) took place over 2 days from January 12th and 13th. The first day started with a welcome speech by the Vice-chancellor and a discussion with the management team in charge of the self-assessment CDA's training programmes auditioned: PhD natural resource management and climate change, PhD agronomy (crops and cropping systems in dryland), MSc & PhD agricultural economics (livelihood and natural resource economics) and MSc & PhD animal science (livestock production and range management in African drylands). Others meetings followed with each team leaders of these training programmes (in the order listed above) and then academic staff from all training programmes. The second day started with closed meeting with students, followed with alumni and partners and finally a wrap-up meeting with head and leaders in charge of all programmes.

- Cooperation of study programme and institution to be accredited: Perfect cooperation by all stakeholders
- People met:

Vice chancellor and management team

The Vice chancellor - Professor Sagir Adamu Abbas

Director, Academic planning - Professor Haruna Musa

Director, CDA - Professor Jibrin M. Jibrin

Deputy Director Training - Professor Sanusi Gaya Mohammed

Deputy Director Outreach and publications - Professor Amina Mustapha

Deputy Director Research - Dr. Kabir Mustapha Umar

Project manager - Dr Yusuf Garba

Coordinator Training - Dr Murtala Muhammad Badamasi

Coordinator Outreach - Dr Amina Lawan Mustapha

Student liaison officer - Dr Aminu Alhassan Fagge

Team leaders in charge of MSc & PhD degrees animal science (livestock production and range management in African drylands)

Dr Nuhu Bello Rano

Dr Saleh Karkarna Inusa

Professor Ibrahim Rakson Muhammad

Dr Abdussamad Muhammad Abdussamad

Dr Mohammed Baba

Dr Aminu Nasiru

Dr Yusuf Garba

Dr Ibrahim Onoto Suleiman

Other teachers and scientists from MSc & PhD animal science (livestock production and range management in African drylands), MSc & PhD agricultural economics (livelihood and natural resource economics), PhD agronomy (crops and cropping systems in dryland) and PhD natural resource management and climate change

Kabir Mustapha Umar

Saleh B. Momale

Bashir Musa

Suleiman Rufai Babura

Lawal Abdul Sani

Dr Alpha Y. Kamara

Dr Hakeem Ayinde Ajeigbe

Dr Foloronso Akinseye

Professor J.M. Jibrin

Professor S.G. Mohammed

Students and alumni from 2 MSc & 4 PhD degrees

20 students, 8 alumni

Industrial Partners from 2 MSc & 4 PhD degrees

ICRISAT - Dr H.A. Ajeigbe

IITA - Dr A.Y. Kamara

Sassakawa Africa Association/SG2000 – Professor Sani Miko

NEWMAP - Musa Shuaibu

- Any problems: None
- Other: None

III. PRESENTATION OF THE STUDY PROGRAMME

1 – PRESENTATION OF THE STUDY PROGRAMME

The study programme of the PhD animal science (livestock production and range management in African drylands) was established in 2014 as an on-site full-time programme of three years. This programme is run by the department of animal science (faculty of agriculture), coordinated by the centre for dryland agriculture (CDA), in Bayero University, Kano (BUK).

This PhD programme is intended to offer an education of the highest university level in both scientific and technical domains. Students are immersed in animal science through their supervising by scientists, and in the production world by an internship and their research programmes in companies. They could be self-sponsored, having a regular job, or granted for research and life. Because the CDA has an international opening, regional students are welcome, and female enrolment is encouraged. Students are educated to play a leading role within institutions and companies in the domain of major importance as animal production. They could have high positions in universities, private companies as feed mills or farms, NGOs in favour of farmers and food plants.

PhD programme may enrol applicants from the MSc programme in the same speciality, which is a logical continuity, but may also welcome students from other masters from BUK, other Nigerian universities and of course universities of other Sub-Saharan region.

Studying livestock production in dryland environment constitutes an indispensable context for a true education in such extreme climatic conditions. It is a major stake for the food independence of this region, and the preservation of its environment.

The full-time PhD programme in animal science (livestock production and range management in African drylands) shall run for a minimum duration of 6 semesters and maximum of 10 semesters. The part-time PhD degree programme shall run for a minimum duration of 6 semesters and maximum of 14 semesters. The programme is designed with course works (including class lectures, presentations, review of some thesis/academic papers, case studies, field demonstration), internship in relevant industry and research works with a thesis defense at the end. Seminars and workshops are also planned with industrial and relevant stakeholders.

2 – PRESENTATION OF THE PROGRAMME'S SELF EVALUATION APPROACH

The CDA is evaluating its PhD animal science (livestock production and range management in African drylands) with the aim of getting it internationally accredited. The evaluation is based on a dual process: self-evaluation and external evaluation. The self-assessment has been carried out by an internal committee constituted by the Director of the CDA, Professor Jibrin Mohammed Jibrin, and the external evaluation has been carried out by the Hcéres. The members of the internal committee are:

- Associate Professor Yusuf Garba, project manager - ACE project and chairman of the committee
- Dr Aminu Alhassan Fagge, student welfare officer - ACE management team
- Dr Amina Lawan Mustapha, outreach coordinator - ACE management team
- Dr Mustapha Mohammed Bello
- Associate Professor Murtala Muhammad Badamasi, coordinator training - ACE management team and secretary of the committee

In carrying out the assignment, the committee worked closely with associate Professor Nuhu Bello Rano, postgraduate programme coordinator of the department of animal science. The self-assessment methodology was based on the Hcéres training evaluation reference system.

IV. EVALUATION REPORT

AREA 1 – THE POSITIONING OF THE DOCTORATE

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of students along most years.

The programme clearly focuses on livestock production and range management in the environmental context of West African drylands, in line with World Bank objectives. The objective of the PhD is clear, and the programme content and duration are well defined. However, the evaluation of training could be improved with formal feedback.

The PhD is located in a favourable environment for students, teachers and stakeholders. Nevertheless, the PhD does not appear to be attractive for both applicants and stakeholders because only few parties are really involved.

Area 1-1: The doctorate's distinct features and objectives are clearly defined

The admission requirements and the content are described in postgraduate student handbook and departmental postgraduate student handbook. Courses with the number of credits are detailed, including aims, learning and teaching activities, intended learning outcomes and methods of assessment.

The curriculum includes an internship of 1-month minimum duration. Also, seminars and workshops are planned by the CDA to give the opportunity to the students to present their research and interact with experts of their field. Partners from private sector, industry, other university and foreign institution share experiences and competences with students through lectures, courses, seminars and research supervision. No example or evidence of such practices were given in either the report or the virtual visit.

As discussed with students during the virtual visit, a formal feedback on course evaluation could be useful for students and teachers to design improvements.

The doctorate is in keeping with the institution's scientific policy. Research policy, intellectual property policy, authorship policy, sexual harassment policy and code of ethics are all available to students in the BUK website.

The PhD programme, designed as full time or half time, has a minimum duration of 6 semesters and a maximum duration of 10 semesters. In practice, this could not be checked because students were only registered in 2018.

The conditions for the award of degree are mentioned in the student handbooks. Students must register and earn a minimum of 48 credits and submit a dissertation based on original research work and subjected to examinations following University regulations. The need to have one scientific publication for students to be graduated (rule in many countries) could be added in the postgraduate student handbook to improve the international recognition of the work, the programme and the centre.

Area 1-2: The positioning of the doctorate is consistent with its environment

The PhD livestock production and range management in African drylands programme is intended to offer an education of the highest level in both scientific and technical domains. Students are immersed in animal science through their supervising by scientists, and in the production world by an internship and their research programmes in companies. Being part of the centre for dryland agriculture (CDA) and managed by the department of animal science, this programme is located in a context offering the best conditions for its main topics.

The department of animal science is also in charge of a master programme in livestock production and range management, creating a complete training course along five years of progressive education. However, despite a valuable number of master students, the number of PhD students is very low, namely three in five years.

Sahelian and Sub-Saharan regions have a strong need of highly educated executives, in both institutional and private structures, but stakeholders seem to ignore this PhD.

AREA 2 – ORGANIZATION AND MANAGEMENT OF THE DOCTORATE

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of student along most years.

The doctorate's organizational structure is managed by the CDA and based on a scientific teaching, technical and administrative team. The roles and responsibilities of each team member are defined.

The admission level, requirements, application and registration processes, work progress monitoring and evaluation are well defined in the student handbook.

The two categories of grants are well mentioned. Two foreign students benefit of financial support out of the three students enrolled, which is a good proportion of this small number of students.

Nevertheless, funding appears as a major issue for increasing student number. Other sources of funding must be found to ensure the future of this training and attract more applicants.

Area 2-1: Effective organization and management is in place for the doctorate

The effective organization and management of the doctorate are mainly supported by teachers and administrative staff belonging to the CDA. The centre has several boards (international scientific advisor board, sectoral/industry advisory board, academic board) to coordinate this doctorate.

The CDA management team (Director, deputy centre leader, programme coordinators, project manager, industry liaison officer, monitoring and evaluation officer and student representative) is in charge of the day-to-day running.

The student handbook codifies rules and requirements of this training as duration, credit units requirements, application procedure, eligibility and admission processes.

The department of animal science provides adequate human resources (8 permanent teaching staff and 6 technicians) for training, plus 1 administrative staff and 6 junior staff. Also, 4 well equipped classrooms are dedicated to the programme and students may have access to all of the centre laboratories and farms which provide the necessary tools to carry out their work.

Classic internal communication tools are used as emails and newsletters to communicate with students. The CDA website is also available even if it needs to be improved in particular to use it as external communication tool.

The evaluation of this doctorate is mainly conducted by the CDA with online survey. Moreover, at the end of each semester, the directorate of academic planning coordinates lecturer evaluation by students. However, no feedback or conclusions were communicated during the present evaluation.

Area 2-2: There is an explicit policy for recruiting and funding doctoral students, which is adapted to the PhD program

To be eligible into the programme, candidates must have a MSc degree in agricultural sciences or related discipline with minimum cumulative grade point average out of 3.5. The rules of recruitment are well exposed in the student handbooks.

The selection and eligibility to grants are exposed in the scholarship policy document. Two categories of scholarship are provided by the CDA: (i) Study fellowship award, applicable to the regional students who come from other African countries, and covers tuition fees, accommodation and a monthly stipend, (ii) Student research grant, applicable to all students but covering only approved research expenditure. As these grants are shared between all the CDA training, the number of grants can therefore fluctuate from year to year and the staff regrets a low number of fellowships. Indeed, during the last five years, no PhD student had a CDA grant, which is really surprising and certainly not enough to ensure the future of this training. Other funding resources may exist, as from Federal University, and ACE fellowship (two grants) uniquely for regional students. Except two foreign students, only one local student is enrolled in the PhD programme. This student appears to be self-sponsored and being a teacher in a local college. This does not constitute a favorable situation to conduct a PhD, especially in the field of livestock production, which requires time for field and farm experiments.

AREA 3 – SUPERVISION AND TRAINING FOR DOCTORAL STUDENTS

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of students along most years.

Supervising and follow-up of doctorate are defined in the postgraduate student handbook. This includes regular progress reports and seminars given by students. The internship of at least one month is a good way to prepare students to their employment, but it has apparently happened only for two of the three enrolled students.

Diverse teachings are offered to students but with no choice of specialized courses, which can be improved. In the provided list of the handbook, some courses are of general interests, others more specialized. No information was given on the choice of courses by students. Validation and content of these course's methods are well explained in the handbook.

The thesis duration and the criteria for authorizing thesis defense are explicit and clearly communicated to doctoral students and supervisors, but it is not useful for the three actual students.

Area 3-1: The doctorate applies a strict doctoral student supervision and follow-up policy

Doctoral students have the appropriate conditions for preparing their doctorate. Indeed, each doctoral student has two supervisors, one academic belonging to the CDA and one from the host company. Their names and positions are not documented in the report and annexes.

A PhD supervisor shall be holder of the PhD degree of at least three years and at least of the rank of senior lecturer, or if not a holder PhD, he must be a professor. All detailed rules concerning the responsibilities of the student, the change of supervisor or suspension of period of registration are given in the postgraduate student handbook.

A supervisor shall keep records of the candidate's progress and submit regular progress reports to the board of the school of postgraduate studies. In addition, the seminar presentations of doctorates also allow a good monitoring of student's research activities. Some details and examples would have been welcome in the report. Preparation for employment begins with the workplace experience during the internship. This is reinforced by courses in entrepreneurship, leadership and organizational management proposed to students during their PhD. Unfortunately, internships topics were not documented in the report and appendices for the two students who did an internship.

The university has a code of ethics where anti-fraud, relationship with staff, conduct on the campus are recorded.

Area 3-2: The doctorate offers diverse teaching and organizes supplementary events

Courses are linked to the expertise of teachers and research units belonging to the CDA. Along the first year, students have to follow three courses with no elective courses, which can be either general (computer, methods) or more specialized (biotechnology, physiology, quality assurance, etc.). Courses in the area of doctorate's interest could be proposed, depending of each research topic. The programme can provide supplementary events as seminars, discussions, field experience as well as the opportunity to practice and improve communication and research skills. Whilst proposed, examples of such events were not documented. Methods for validating this teaching are well set out in the postgraduate student handbook where the students can find the rules of assessment and the scoring system.

Area 3-3: The doctorate is based on explicit rules for thesis duration and defense

The duration of PhD is clear and shall run for a minimum duration of three years and maximum of five. In case of part-time PhD students, the maximum duration is extended to seven years. Since there is only one cohort of students in 2018 for the past five years (available data), no check could be made for PhD duration.

To be eligible for the award of this training, a candidate is required to obtain 6 credits of 2 courses from PhD course work, 12 credits from thesis, a one-month non-credit internship and non-credit seminars. In the postgraduate student handbook, there is no mention of the requirement of a scientific publication for the defense even if supervisors have explained during the virtual visit that this constitutes an important point. So, in order to level up this training, it could be useful to formally require a scientific publication for the PhD defense, and also to encourage participation in national and international congresses.

AREA 4 – INTEGRATION OF DOCTORS INTO THE JOB MARKET

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of students along most years.

Partnerships established with numerous partners at local, regional and international level participate to promote the doctorate. However, nothing argues that some of them provide internships. In addition, the total lack of current graduates does not allow to really assess the integration into the job market. So, even if this training is fairly recent, the management team must pay attention to the following of the programme. In addition, the total lack of PhD students four out of five years requests also a particular interest.

To enhance the promotion of this PhD, more formal tools could be made and the CDA website should be updated.

Area 4-1: The doctorate includes mechanisms to promote the integration of doctors into the job market

The centre for dryland agriculture has numerous socio-economical partners who help to promote the integration of doctors into the job market. Nevertheless, with no graduate PhD student, their real integration into the job market is not yet visible. Alumni would participate to promote this programme, but, again, no current graduate can ensure an active promotion.

There are no formal tools to inform about the requirements and conditions of potential job openings as the centre's website is not well updated. Nevertheless, the close relationship with partners and their professional networks could ensure the good dissemination of information, at both local and regional scales.

Area 4-2: The doctorate has effective monitoring of the integration of doctors into the job market

The very low number of students, and their unfinished PhDs do not authorize a conclusion on the integration of doctors into the job market. Moreover, alumni are not yet organized in association but the proximity of students with staff may favor a close link between doctors and the CDA.

As no student has graduated, it is difficult to have a real view of employment. Other employments are mentioned in the academic way or government agencies but concerning not yet graduated students. Recruiting graduated doctors to reinforce the academic teacher's staff was a wish expressed during the virtual visit.

Area 4-3: The data collected is analyzed, communicated and used

Three PhD students were enrolled since 2015, all in 2018, and obviously none has been graduated yet. One useful data is the number of applicants, which is 1 in 2015 to 6 in 2019. Nothing explains why no enrolment was made in 2019 despite 6 applicants. As yet, 1 woman is Nigerian, and 2 men are respectively from Niger and Chad. As expected, the Nigerian student had an internship in a local company, which is L & Z Farms, Kano. Being apparently not funded, nor by this company, nor through the grant CDA programme, this student has to work elsewhere. The Nigerien student is funded by an ACE fellowship and had his internship in a private farm, namely Sahelbio Agribusiness Farm, Niamey, Niger. The Chadian student benefits also from an ACE fellowship, but his internship place is not documented.

The first emergency is an increase of the local and international visibility. It can start with an efficient and more functional website. Maybe, as it was done for other educating programmes of the CDA, teachers may rename the PhD to break away from the obsolete image of livestock as an artisanal field of research.

No explanation is provided concerning this lack of enrolment. One question remains also about the number of applicants lower than the number of enrolled students in 2018/2019.

Nevertheless, the data communication to local, national and international partners (institutions and socio-economic partners) should be a key factor to increase attractiveness and benefits to meet African challenges.

V. CONCLUSION

The PhD programme in animal science (livestock production and range management in African drylands) is unique in the region and is clearly identified as well as its target audience. The centre for dryland agriculture (CDA) has the administrative management of this training which ensures proper functioning. This centre, through the department of animal science, provides also all facilities and an efficient teaching team to well supervise PhD students. This PhD has all what is needed to be efficient.

However, the number of students enrolled in this doctorate is insufficient (three in five years), which shows that the attractiveness of this programme is doubtful with a very low number of applicants. Even if the Covid crisis could explain a lack of recruitment in 2019-2020, it cannot explain the low enrolment before. It should be noted that this main difficulty was not pointed out by the management team during the visit or in the self-evaluation report but emerged only after with the analysis of the additional data requested. Despite this, it is impossible to properly evaluate the actual functioning of the PhD programme, because of too low student number even if the theoretical frame is really well described in the student handbook and self-evaluation report.

It is worth noting that the unique Nigerian student is self-sponsored while the two foreign students have fellowships. The national and international dynamics should be reinforced by an effective attractive policy. This could start with a name change to disrupt with the old fashioned meaning of livestock, which remains artisanal and unorganized, and thus attract young students. In order to maintain this doctorate in the future, a better visibility of the programme and a strategy of funding must be proposed to promote students to apply to the programme.

Even if all tools to follow students are well exposed (regular progress reports and seminars given by students), the duration of the thesis cannot be checked because the only promotion is too recent.

The link between students and job market is particularly devoted to the internship. However, only some data on this experience are provided, even if a lot of partners are indicated in the self-evaluation report. In any case, to keep this interesting programme efficient, a better involvement of socio-economics partners is also expected.

TODAY'S CHALLENGES

- Improve the attractiveness in the field of livestock production
- Promote the adequation of courses and research topics with the real needs of companies hosting students
- Ensure that the PhD degree in the field of livestock production is well positioned in the labor market
- Improve communication and the CDA website
- Reinforce the valorization of the scientific results of the doctoral students by international publications and national/international congresses participation

OUTLOOK OF THE FUTURE

- Increase visibility and attractiveness of the doctorate
- Increase the number of students (national and foreign students), with gender balance
- Increase the number of scholarships

STRENGTHS

- Unique high level training in Nigeria focusing in livestock production and range management
- Facilities of high levels offered by the CDA
- Structured training programme, with an adequate number of qualified staff

WEAKNESSES

- Lack of enrolled students, because a low number of applicants
- Links with institutional and private structures not sufficiently developed
- Lack of adequation with the needs of the job market at PhD level

RECOMMENDATIONS

- Improve external communication, including updating the CDA website, but also advertising in animal science master's programmes at BUK and other universities in Nigeria and abroad, to promote this training and increase the number of applicants and students
- Think about the positioning of this PhD in the job market in comparison with master in livestock production
- Change the name of the training programme to be more attractive and fashioned, and in progression with the master
- Carefully supervise students to improve their employability
- Reinforce partnerships with companies that need highly qualified manpower as in the poultry chains

VI. COMMENTS OF THE INSTITUTION



CENTRE FOR DRYLAND AGRICULTURE BAYERO UNIVERSITY, KANO



Vice-Chancellor: Professor Sagir Adamu Abbas, B.Sc., M.Ed. (BUK), PhD (BUK), FMAN
 Director: Professor Jibrin M. Jibrin, B.Agric., M.Sc., Ph.D (ABU), RSS, FSSSN

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29th October 2021

Antoine DEVOUCOUX du BUYSSON
 Responsable de projet / Head of project
 Département Europe et International
 Europe & International Department
 2 rue Albert Einstein - 75013 Paris

Dear Professor du BUYSSON,

Re: CDA ACE Evaluation Report (PhD Animal Science – Livestock Production and Range Management in African Drylands)

Thank you very much for sharing the evaluation report of our PhD Animal Science (Livestock Production and Range Management in African Drylands) programme. The Centre for Dryland Agriculture (CDA) responds to the comments and recommendations contained in the report as follows:

1. *Improve external communication, including updating the CDA website, but also advertising in animal science master's programmes at BUK and other universities in Nigeria and abroad, to promote this training and increase the number of applicants and students.* The CDA accepts this recommendation. A more rigorous promotion of the programme will be embarked both locally and regionally through various channels.
2. *Think about the positioning of this PhD in the job market in comparison with master in livestock production.* More effort will be done to promote the programme in the job market and to match graduates with opportunities.
3. *Change the name of the training programme to be more attractive and fashioned, and in progression with the master.* The Centre will consider this suggestion. Stakeholders consultations will be carried out to come up with suggestions on the name.
4. *Carefully supervise students to improve their employability.* The CDA accepts this recommendation. Already the Centre is consulting with School of Postgraduate Studies (SPS) to institute a more rigorous process for tracking and monitoring student-supervisor progress.
5. *Reinforce partnerships with companies that need highly qualified manpower as in the poultry chains.* The CDA accepts this recommendation.

Yours sincerely



Professor Jibrin M. Jibrin

LIST OF ACRONYMS

ACE :	African center of excellence
BUK :	Bayero University, Kano
CDA :	Centre for dryland agriculture
GIS :	Geographic information system
Hcéres :	High Council for the evaluation of research and higher education
ICRISAT :	International crops research institute for the semi-arid tropics
IITA :	International institute of tropical agriculture
ISAB :	International scientific advisory board
LPRMAD :	Livestock production and range management in African drylands
MSc :	Master of Science
NUC :	National Universities Commission of Nigeria
PGD :	Postgraduate diploma programme
PhD :	Doctoral degree
SIAB :	Sectoral/industry advisory board
UK :	United Kingdom
USA :	United States of America
WCA :	West and Central Africa

Europe and International department

ACCREDITATION DECISION

Ph.D. Animal Science (Livestock Production and Range Management in African Drylands)

Centre for Dryland Agriculture,
Bayero University, Kano

Nigeria

December 2021

SCOPE OF THE ACCREDITATION GRANTED BY HCÉRES

Hcéres has built its evaluation process based on a set of objectives that higher education institution PhD programmes must pursue to ensure recognised quality within France and Europe. These objectives are divided up into four fields among which are the accreditation criteria.

As for the "External Evaluation Standards", the accreditation criteria have been specifically designed for foreign PhD programmes. The accreditation criteria were adopted by the Board on December 2017 and are available on the Hcéres website (hceres.fr).

The accreditation committee, meeting his accreditation decision, has wholly taken into account the final evaluation report of the PhD programme. This accreditation decision is the result of a collegial and reasoned process.

The accreditation decision issued by Hcéres shall not grant any rights whatsoever, whether in France or abroad. The decision on PhD programme accreditation confers an accreditation label and does not infer recognition of the accredited qualifications. The Hcéres accreditation process therefore has no impact on the qualifications recognition process in France.

FULFILLMENT OF THE ACCREDITATION CRITERIA

AREA 1: THE POSITIONING OF THE DOCTORATE

Accreditation criterion

The positioning, the content and the objectives of the doctorate are clearly defined. Its interactions with the stakeholders (lead institution(s), foreign partners, socio-economic environment) are formally set out and effective. Its links with the research units and the institution's scientific policy are effective.

Criterion assessment

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of students along most years.

The programme clearly focuses on livestock production and range management in the environmental context of West African drylands, in line with World Bank objectives. The objective of the PhD is clear, and the programme content and duration are well defined. However, the evaluation of training could be improved with formal feedback.

The PhD is located in a favorable environment for students, teachers and stakeholders. Nevertheless, the PhD does not appear to be attractive for both applicants and stakeholders because only few parties are really involved.

AREA 2: ORGANIZATION AND MANAGEMENT OF THE DOCTORATE

Accreditation criterion

The doctorate's organization and management are clearly defined and rely on material and human resources adapted to the requirements of programmes at ISCED level 8. Internal quality assurance mechanisms are in place and effectively used in order to improve continuously the doctorate. The doctoral students recruiting is formally set out, their funding is fair and sustainable.

Criterion assessment

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of student along most years.

The doctorate's organizational structure is managed by the CDA and based on a scientific teaching, technical and administrative team. The roles and responsibilities of each team member are defined.

The admission level, requirements, application and registration processes, work progress monitoring and evaluation are well defined in the student handbook.

The two categories of grants are well mentioned. Two foreign students benefit of financial support out of the three students enrolled, which is a good proportion of this small number of students.

Nevertheless, funding appears as a major issue for increasing student number. Other sources of funding must be found to ensure the future of this training and attract more applicants.

AREA 3: SUPERVISION AND TRAINING FOR DOCTORAL STUDENTS

Accreditation criterion

A strict policy of supervising and follow-up of doctoral students is set. Doctoral students have access to various teaching and professional trainings and take part in scientific/professional actions. Explicit rules are defined

concerning the thesis duration and defense. Measures to combat fraud, plagiarism and corruption are applied within the doctorate.

Criterion assessment

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of students along most years.

Supervising and follow-up of doctorate are defined in the postgraduate student handbook. This includes regular progress reports and seminars given by students. The internship of at least one month is a good way to prepare students to their employment, but it has apparently happened only for two of the three enrolled students.

Diverse teachings are offered to students but with no choice of specialized courses, which can be improved. In the provided list of the handbook, some courses are of general interests, others more specialized. No information was given on the choice of courses by students. Validation and content of these course's methods are well explained in the handbook.

The thesis duration and the criteria for authorizing thesis defense are explicit and clearly communicated to doctoral students and supervisors, but it is not useful for the three actual students.

AREA 4: INTEGRATION OF DOCTORS INTO THE JOB MARKET

Accreditation criterion

The doctorate implements systems to promote the doctorate and the integration of doctors into the job market. The integration monitoring and analysis are effective and used to perform the continuous improvement of the doctorate.

Criterion assessment

The analysis of this item is based on the given documents, but the actual functioning of the PhD is not accessible because of the absence of students along most years.

Partnerships established with numerous partners at local, regional and international level participate to promote the doctorate. However, nothing argues that some of them provide internships. In addition, the total lack of current graduates does not allow to really assess the integration into the job market. So, even if this training is fairly recent, the management team must pay attention to the following of the programme. In addition, the total lack of PhD students four out of five years also requests a particular interest.

To enhance the promotion of this PhD, more formal tools could be made and the CDA website should be updated.

FINAL ASSESSMENT

Considering the accreditation criteria analysis detailed above, the accreditation committee issues the following decision:

“Not accredited”

and draws attention to the various recommendations made by the committee of experts in its evaluation report:

- No Ph.D has been awarded in the programme since its creation
- Think about the positioning of this PhD in the job market in comparison with master in livestock production
- Carefully supervise students to improve their employability
- Reinforce partnerships with companies that need highly qualified manpower as in the poultry chains
- Change the name of the training programme to be more attractive and fashioned, and in progression with the master
- Improve external communication, including updating the CDA website, but also advertising in animal science master's programmes at BUK and other universities in Nigeria and abroad, to promote this training and increase the number of applicants and students

SIGNATURE

For HCERES,

Thierry Coulhon, President:



Date: Paris, December 17th 2021



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